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IS 6999 (1973): Cannula, Artificial Insemination [MHD 3 : Obstetric and Gynaecological Instruments and Appliances]

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Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”





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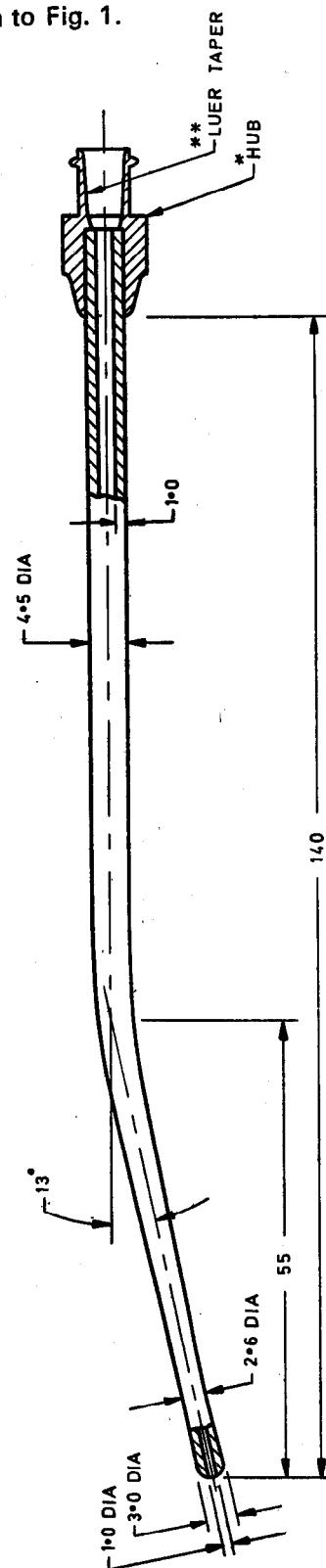


*Indian Standard*  
**SPECIFICATION FOR**  
**CANNULA, ARTIFICIAL INSEMINATION**

**1. Scope** — Dimensional and other requirements for artificial insemination cannula.

**2. Shape and Dimensions**

**2.1** The cannula shall conform to Fig. 1.



\* See Fig. 2 for details.

\*\* See IS : 3234-1965 ' Specification for conical fitting for hypodermic syringes, needles and other medical equipment, Luer type '.

All dimensions in millimetres.

**FIG. 1 CANNULA, ARTIFICIAL INSEMINATION**

Adopted 13 June 1973

© February 1974, ISI

Price Rs. 3.00  
Revised Price

## 2.1.1 Luer lock hub shall conform to Fig. 2.

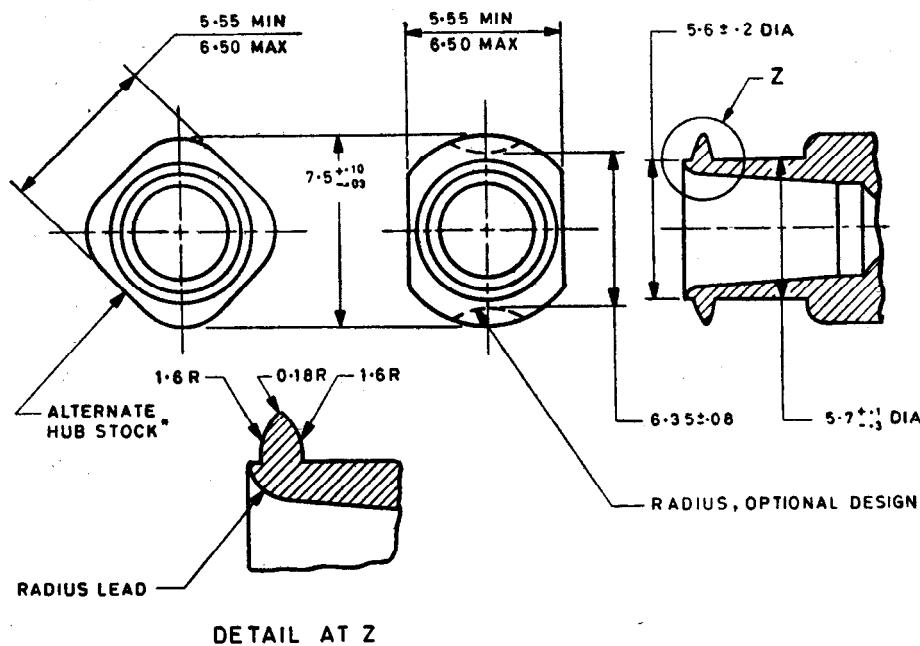


FIG. 2 HUB, LUER LOCK

## 3. Material

3.1 *Cannula* — Fine silver ( see IS : 2112-1962 Specification for grades of silver and silver alloys ).

3.2 *Hub* — Free cutting brass rod or bar conforming to IS : 319-1968 ' Specification for free-cutting brass rods and sections ( second revision ) '.

3.3 *Stilette* — Hard drawn stainless steel wire.

## 4. Workmanship and Finish

4.1 All the surfaces shall be free from pits, dents, burrs, scales and other defects.

4.2 Stilette supplied one for each cannula shall be smooth, bright and free from nicks and shall slide smoothly into the cannula.

4.3 The open tip of the cannula shall be rounded and slightly bulbous.

4.4 The cannula shall be pushed well into the cavity of the hub but not extending into the conical portion, and securely swaged. The cannula and hub shall be concentric and well designed.

4.5 The hub shall be free from sharp edges and roughness. It shall be plated, both inside and outside, with chromium over nickel and the plating shall conform to Service Grade No. 2 of IS : 4827-1968 ' Specification for electroplated coatings of nickel and chromium over copper and copper alloys '.

## 5. Conical Fitting — Luer type in accordance with IS : 3234-1965.

## 6. Tests

6.1 *Leakage Test* — Fit the cannula to a syringe. Connect the syringe to water supply and seal of the cannula outlet after eliminating air. Exert a pressure of  $300\text{KN}/\text{m}^2$  ( $3\text{kgf}/\text{cm}^2$  approx ) for 10 seconds. The cannula or the joint between cannula and syringe shall not leak.

6.2 *Security of Swaging* — The swaging of the cannula with the hub shall be tested by applying a pull of 9.0 kg for one minute. The cannula shall not come out of the hub and it shall not become loose.

6.3 *Corrosion Resistance Test* — The cannula shall be immersed in a 10 percent solution of citric acid at room temperature for 5 hours. It shall then be boiled in distilled water for 30 minutes and cooled while immersed in the same for 48 hours. The cannula or hub shall show no corrosion. The test shall be conducted in a glass container.

## 7. Marking — The hub shall be marked with the manufacturer's identification mark.

7.1 *ISI Certification Marking* — Details available with the Indian Standards Institution, New Delhi 110001.

8. *Packing* — Cannula shall be packed in accordance with best trade practices and supplied with equal number of stilettos also packed suitably. The packet shall be marked with the manufacturer's name.